16. (Amended) The radiation directing device of claim 14, wherein said means for changing direction is juxtaposed at an angle β with respect to a line intersecting said pin holes.

26. (Amended) The radiation directing device of claim 23, wherein said means for changing direction is juxtaposed at an angle β with respect to a line intersecting said pin holes.

31. (Amended) The apparatus of claim 19, further comprising a means for directing radiation reflected by said mirrored surface to said radiation detecting means.

33. (Amended) A radiation beam aligning apparatus, comprising:

(a) a flow chamber;

(b) a screen having a mirrored surface interrupted by one or more pin holes passing through said screen;

(c) a means for directing a radiation beam from said flow chamber to said screen; and

(d) a means for detecting said radiation beam reflected by said mirrored surface, wherein said detecting means determines a position of said radiation beam relative to said pin hole.

38. (Amended) The apparatus of claim 39, wherein said means for changing the direction of propagation is placed to direct radiation beams passing through said 2 or more pin holes orthogonal to each other.

40. (Amended) The radiation directing device of claim 39, wherein said means for changing direction is juxtaposed at an angle β with respect to a line intersecting said pin holes.

B10

45. (Amended) The apparatus of claim 33, further comprising a means for directing radiation reflected by said mirrored surface to said radiation detecting means.

B11

48. (Amended) An automated system for aligning a radiation beam, comprising:

(a) a screen having a mirrored surface interrupted by one or more pin holes passing through said screen;

(b) a means for directing a radiation beam to said screen, said directing means attached to a positioning device;

(c) a means for detecting radiation reflected by said mirrored surface, wherein said detecting means determines a position of a radiation beam relative to said pin hole; and

(d) a computer system controlling movement of said positioning device, said computer system receiving a signal from said detection means and sending a processed output signal to said positioning device, wherein said output signal directs the movement of said positioning device.

B12 SUB C3

51. (Amended) A radiation directing device, comprising a mirrored surface interrupted by one or more pin holes, said pin holes having an elliptical shape, wherein said mirrored surface prevents passage of radiation in the UV, VIS or IR regions of the spectrum, wherein the major axis of said elliptical pin holes is about 0.1 to 2 mm.

52. (Amended) A radiation directing device, comprising a metal coating of a mirror, said metal coating interrupted by one or more pin holes, said pin holes having an elliptical shape, wherein the major axis of said elliptical pin holes is about 0.1 to 2 mm.

B13

59. (Amended) The apparatus of claim 19, wherein said pin hole comprises a material transparent to radiation in the UV, VIS or IR regions of the spectrum.

Please add the following new claims:

68. An automated system for aligning a radiation beam, comprising:

(a) a screen having a mirrored surface interrupted by one or more pin holes passing through said screen;

(b) a flow chamber, said flow chamber attached to a positioning device;

B14

(c) a means for directing a radiation beam to said screen;

(d) a means for detecting radiation reflected by said mirrored surface, wherein said detecting means determines a position of a radiation beam relative to said pin hole; and

(e) a computer system controlling movement of said positioning device, said computer system receiving a signal from said detection means and sending a processed output signal to said positioning device, wherein said output signal directs the movement of said positioning device.

69. The automated system of claim 68, wherein said means for directing a radiation beam to said screen is attached to said positioning device.

70. An automated system for aligning a radiation beam, comprising:

(a) a screen having a mirrored surface interrupted by one or more pin holes passing through said screen;

(b) a flow chamber;

(c) a means for directing radiation to said flow chamber, said means for directing radiation to said flow chamber attached to a positioning device;

(d) a means for directing a radiation beam to said screen;

(e) a means for detecting radiation reflected by said mirrored surface, wherein said detecting means determines a position of a radiation beam relative to said pin hole; and

(f) a computer system controlling movement of said positioning device, said computer system receiving a signal from said detection means and sending a processed output signal to said positioning device, wherein said output signal directs the movement of said positioning device.

71. The automated system of claim 68, wherein said means for directing a radiation beam to said screen is attached to said positioning device.

REMARKS

Claims 1-67 are pending in the above-identified application. By the present amendment, claim 4 has been cancelled; claims 1, 15, 16, 26, 31, 33, 38, 40, 45, 48, 51, 52, and 59 have been amended; and new claims 68-71 have been added. Following entry of the present amendment, claims 1-3 and 5-71 will be pending.

By the present amendment the abstract has been amended. Although Applicant believes that the abstract satisfies the requirements for proper language and format, it has been amended to comport with the Examiner's suggestion. The amendments satisfy a formality and do not introduce new matter.

Claims 1, 51 and 52 have been amended to recite "wherein the major axis of said elliptical pin holes is about 0.1 to 2 mm", support for which can be found in the specification including,